



S. S. PAPADOPULOS & ASSOCIATES, INC.
ENVIRONMENTAL & WATER RESOURCE CONSULTANTS

INVOICE

Client:
US Environmental Protection Agency

RTP Finance Center
 (AA216-01)
 109 TW Alexander Drive
 Durham, NC 27711
 Mr. Daniel Olsson

Invoice #:	23912
Date:	12/23/2021
Project Name:	EPA R5: Hydrogeologic Synthesis & Modeling Support
Project #:	1725

Comments:

GSA Contract #GS-10F-0462M
 Order No.: 68HE0520F0029

Remit Payment To: S. S. Papadopoulos & Associates, Inc.
 1801 Rockville Pike - Suite 220
 Rockville, MD 20852
 Phone: (301) 718-8900

For Services Rendered Through 11/30/2021

002-01-10 - 0001AB-Union Carbide Corporation Superfund Site
Professional Services

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Associate			
Neville, Christopher	██	██	\$181.95
Spiliotopoulos, Alexandros	██	██	\$1,091.70
Technician/Draftsperson			
Pekoske, Kristen M	██	██	\$96.38
Labor Subtotal	██		\$1,370.03
Item Subtotal			\$1,370.03

003-01-10 - 0001AC-St. Regis Paper Company Superfund Site
Professional Services

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Associate			

Spiliotopoulos, Alexandros			\$5,094.60
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique			\$1,537.30
Technician/Draftsperson			
Pekoske, Kristen M			\$115.65
Labor Subtotal			\$6,747.56
Item Subtotal			\$6,747.56

004-00-10 - 0001AD-Pristine Superfund Site**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal			
Tonkin, Matthew J	████	████	\$809.55
Sr. Project Hydrogeologist/Sci			
Karanovic, Marinko	████	████	\$951.66
Perozo, Erica L. DiFilippo	████	████	\$1,098.08
Technician/Draftsperson			
Pekoske, Kristen M	████	████	\$96.38
Labor Subtotal	<hr/> ████		<hr/> \$2,955.68
Item Subtotal			<hr/> \$2,955.68

005-01-10 - 0001AE-Chemical Recovery Systems Superfund Site**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique	████	████	\$3,733.46
Prj. Hydrogeologist/Sci.			
Slawter, Kristen EM	████	████	\$931.35
Technician/Draftsperson			
Pekoske, Kristen M	████	████	\$173.48
Labor Subtotal	<hr/> ████		<hr/> \$4,838.29
Item Subtotal			<hr/> \$4,838.29

008-01-10 - 0001AH-Hedblum Industries Superfund Site**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal			
Tonkin, Matthew J	██	████	\$173.48
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique	████	████	\$1,903.33

Pekoske, Kristen M			\$96.38
Labor Subtotal			\$2,173.19
Item Subtotal			\$2,173.19

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009-00-10 - 0001AI-SE Rockford**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal			
Tonkin, Matthew J	████	████	\$1,040.85
Sr. Hydrogeologist/Sci.			
Bedekar, Vivek S	████	████	\$1,291.92
Mihm, Kathleen	██	████	\$121.12
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique	████	████	\$6,515.24
Prj. Hydrogeologist/Sci.			
Cousins, S. James	████	████	\$1,197.45
Karanovic, Zdravka	████	████	\$1,463.55
Shannon, Rachel	████	████	\$1,862.70
Sr. Staff Hydrogeologist/Sci.			
O'Connell, Matthew T	████	████	\$5,509.42
Staff Hydrogeologist/Sci.			
Adams, Glen	████	████	\$440.04
Technician/Draftsperson			
Pekoske, Kristen M	████	████	\$269.85
Labor Subtotal	████		\$19,712.16
Item Subtotal			\$19,712.16

010-00-10 - 0001AJ-Forest Waste Superfund Site**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal			
Tonkin, Matthew J	████	████	\$2,891.25
Associate			
Neville, Christopher	████	████	\$181.95
Sr. Hydrogeologist/Sci.			

Mihm, Kathleen			\$4,723.58
Sr. Project Hydrogeologist/Sci			
Karanovic, Marinko			\$2,415.76
Sorel, Dominique			\$2,269.36
Prj. Hydrogeologist/Sci.			
Cousins, S. James			\$2,993.62
Shannon, Rachel			\$1,064.40
Slawter, Kristen EM			\$99.79

Project 1725 EPA R5: Hydrogeologic Synthesis & Modeling Support

Invoice 23912

Staff Hydrogeologist/Sci.

Nelson, Leah I

\$1,527.22

Technician/Draftsperson

Pekoske, Kristen M

\$173.48

Labor Subtotal**\$18,340.43****Item Subtotal****\$18,340.43****011-01-10 - 0001AK - Motor Wheel Tire Disposal****Professional Services****Employee Type****Hours****Rate****Amount**

Principal

Rafferty, Michael T

\$1,387.80

Tonkin, Matthew J

\$2,486.48

Sr. Project Hydrogeologist/Sci

Karanovic, Marinko

\$1,903.33

Sorel, Dominique

\$4,392.30

Prj. Hydrogeologist/Sci.

Cousins, S. James

\$66.52

Karanovic, Zdravka

\$16,631.25

Staff Hydrogeologist/Sci.

Adams, Glen

\$232.96

Technician/Draftsperson

Pekoske, Kristen M

\$192.75

Support Personnel

Corson, Pamela

\$67.80

Labor Subtotal**\$27,361.21****Item Subtotal****\$27,361.21****012-02-10 - 0001AL - Verona Wells - OU2****Professional Services****Employee Type****Hours****Rate****Amount**

Principal

Tonkin, Matthew J			\$231.30
Associate			
Spiliotopoulos, Alexandros			\$2,092.42
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique			\$1,098.08
Labor Subtotal			\$3,421.81
Item Subtotal			\$3,421.81

013-01-10 - 0001AM - Hagen Farm**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Associate			
Spiliotopoulos, Alexandros	██	██	\$2,547.30
Sr. Project Hydrogeologist/Sci			
Sorel, Dominique	██	██	\$951.66
Technician/Draftsperson			
Pekoske, Kristen M	██	██	\$96.38
Labor Subtotal	██		\$3,595.35
Item Subtotal			\$3,595.35

014-01-10 - 0001AN - Springfield**Professional Services**

<u>Employee Type</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal			
Andrews, Charles B	██	██	\$462.60
Tonkin, Matthew J	██	██	\$231.30
Sr. Project Hydrogeologist/Sci			
Perozo, Erica L. DiFilippo	██	██	\$3,367.43
Prj. Hydrogeologist/Sci.			
Shannon, Rachel	██	██	\$1,729.65
Staff Hydrogeologist/Sci.			
Nelson, Leah I	██	██	\$4,219.26
Technician/Draftsperson			
Pekoske, Kristen M	██	██	\$115.65
Rutledge, Devon R	██	██	\$462.60
Labor Subtotal	██		\$10,588.49
Item Subtotal			\$10,588.49

015-00-10 - 0001AO - Bendix**Professional Services**

<u>Employee Type</u>	Hours	Rate	Amount
Principal			
Rafferty, Michael T	████	████	\$693.90
Tonkin, Matthew J	████	████	\$2,139.52
Associate			
Neville, Christopher	████	████	\$545.85
Sr. Project Hydrogeologist/Sci			
Karanovic, Marinko	████	████	\$878.46

Project 1725 EPA R5: Hydrogeologic Synthesis & Modeling Support

Invoice 23912

Perozo, Erica L. DiFilippo			\$12,591.26
Sorel, Dominique			\$146.41
Prj. Hydrogeologist/Sci.			
Slawter, Kristen EM			\$931.35
Staff Hydrogeologist/Sci.			
Adams, Glen			\$155.31
Technician/Draftsperson			
Pekoske, Kristen M			\$501.15
Rutledge, Devon R			\$346.95
Labor Subtotal			\$18,930.17
Item Subtotal			\$18,930.17
Invoice Amount			\$120,034.37

Project Summary

Budget	Previously Billed	Current Billing	Billed To Date	Budget Remaining
\$2,278,922.47	\$1,032,581.70	\$120,034.37	\$1,152,616.07	\$1,126,306.40



Matthew J. Tonkin
 Project Manager
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S.S. PAPADOPULOS & ASSOCIATES, INC.
ENVIRONMENTAL & WATER-RESOURCE CONSULTANTS

Site Specific Detail Report

EPA TASK ORDER #: 68HE0520F0029

GSA Contract #GS-10F-0462M

Inv. #23912

Reporting Period: 11 February 2020 through November 30, 2021

subClin	Site/Project Title	Job Number			Current Charges	Cumulative Charges
		SSID	Action Code	OU	Inv. #23912	
0001AA	Ottawa Township Flat Glass Superfund Alternative Site	B5A7	NK	03	\$ -	\$ 63,759.26
0001AA	Ottawa Township Flat Glass Superfund Alternative Site	B5A7	NK	04	\$ -	\$ 63,759.25
0001AB	Union Carbide Corporation Superfund Site	05F4	BF	02	\$ 1,370.03	\$ 64,979.76
0001AC	St. Regis Paper Company Superfund Site	05J2	OM	00	\$ 6,747.56	\$ 72,919.34
0001AD	Pristine Superfund Site	0556	ME	05	\$ 2,955.68	\$ 276,602.41
0001AE	Chemical Recovery Systems Superfund Site	0521	BE	01	\$ 4,838.29	\$ 151,145.56
0001AE	Chemical Recovery Systems Superfund Site	0521	BE	02	\$ -	\$ 1,425.36
0001AF	Lemberger Landfill Superfund Sites	053E	FE	00	\$ -	\$ 322.34
0001AG	Lemberger Transport & Recycling Superfund Site	05J4	FE	00	\$ -	\$ 7,342.53
0001AH	Hedblum Industries Superfund Site	05E9	ME	01	\$ 2,173.19	\$ 47,174.51
0001AI	SE Rockford Superfund Site	05DK	OM	02	\$ 19,712.16	\$ 92,498.62
0001AJ	Forest Waste Superfund Site	05D5	BF	02	\$ 18,340.43	\$ 134,964.51
0001AK	Motor Wheel Disposal Superfund Site	05S5	BF	01	\$ 27,361.21	\$ 59,664.46
0001AL	Verona Well Field Superfund Site	0551	TA	01	\$ -	\$ -
0001AL	Verona Well Field Superfund Site	0551	TA	02	\$ 3,421.81	\$ 27,407.83
0001AM	Hagen Farm Superfund Site	053C	ME	02	\$ 3,595.35	\$ 16,550.87
0001AN	Springfield Township Dump Superfund Site	05A7	OM	01	\$ 10,588.49	\$ 35,470.69
0001AO	Bendix Superfund Site	05AS	TA	01	\$ 18,930.17	\$ 36,628.77
Total					\$ 120,034.37	\$ 1,152,616.07

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1725_summary table thru 113021.xlsx



S.S. PAPADOPULOS & ASSOCIATES, INC.
ENVIRONMENTAL & WATER-RESOURCE CONSULTANTS

EPA Region 5 Support
Description of Services Performed
Period of Performance:
Through November 2021

1725-002-01-10 0001AB-Union Carbide Corporation Superfund Site

Services were performed by the following SSP&A staff:

Staff	Hours
Alexandros Spiliotopoulos	████
Christopher Neville	████
Kristen Pecoske	████

During this period, A. Spiliotopoulos reviewed the monthly report, the monitoring well installation report, and the proposed report outline for the performance evaluation. He also prepared a response to EPA with comments on the monitoring well installation report and joined a review call with UCC/EPA. C. Neville reviewed the well development approach and results. K. Pecoske worked on the monthly report.

1725-003-01-10 0001AC-St. Regis Paper Company Superfund Site

Staff	Hours
Alexandros Spiliotopoulos	████
Dominique Sorel	████
Kristen Pecoske	████

During this period, A. Spiliotopoulos reviewed previous reports/material. He reviewed the model report, the optimization report, the 2020 annual report, and the porewater report. He prepared responses to IP's responses to EPA comments on the 2020 annual report, joined a status call, and joined a review call with L. Patterson. He also finalized comments on the revised 2020 annual report and sent them to EPA and spent time constructing the database for data review. Additionally, A. Spiliotopoulos joined a call with L. Patterson on the porewater investigation review comments, prepared and finalized comments on the report, and worked on the conceptual model / GW investigation summaries. He also reviewed the Organoclay study and the proposed well OU3 memo and joined a call with D. Sorel to

complete the memo on the Porewater report. Finally, he reviewed the OU3 pilot investigation, reviewed and commented on the OU3 well placement, and reviewed the well construction report. D. Sorel reviewed the annual report and the porewater report and communicated with A. Spiliotopoulos and EPA. Finally, she worked on the monthly report and joined a call with A. Spiliotopoulos. K. Pekoske worked on the monthly report.

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1725-004-01-10 0001AD-Pristine Superfund Site Systems

Staff	Hours
Erica Perozo	████
Marinko Karanovic	████
Matthew Tonkin	████
Kristen Pekoske	████

During this period, E. Perozo joined several calls including calls with EPA, GHD, and EPA and the PRP. She also worked on the November 3 meeting memo and edited the regional contamination memo. M. Karanovic joined conference calls about visualization, one with EPA and one with GHD, and then joined an internal call discussing visualization and next steps. He also reviewed the 4DIM files sent by GHD and corresponded with them about the files. Finally, he joined a call with GHD about EVS visualization. M. Tonkin attended the data gap group meeting, reviewed and commented on the Regional Contamination final draft memo, and joined a follow up call with E. Perozo to discuss the comments and lines of evidence and conclusions for some posed questions. Finally, he reviewed the technical memorandum for E. Perozo and provided comments and edits for incorporation. K. Pekoske worked on the monthly report.

1725-005-01-10 0001AE-Chemical Recovery Systems Superfund Site

Staff	Hours
Dominique Sorel	████
Kristen Slawter	████
Kristen Pekoske	████

During this period, D. Sorel communicated with the laboratory, worked on data validation, and communicated with Pace and K. Slawter regarding EDD, and worked on a draft field work memorandum. She also joined a call with J. Canova and communicated with EPA (M. Kerr) regarding performance evaluation samples, spike concentrations to validate results, and data validation. Finally, she worked on the monthly report. K. Slawter worked on data validation. K. Pekoske worked on the monthly report, compiled invoice notes for D. Sorel, and assisted with deliverable management.

007-01-10 - 0001AG-Lemberger Transport & Recycling Superfund Sites

No activity during this period

No activity during this period.

1725-008-01-10 0001AH-Hedblum Industries Superfund Site

Staff	Hours
Dominique Sorel	████
Matthew Tonkin	████
Kristen Pekoske	████

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During this period, D. Sorel received and reviewed a document, commented on the work plan, and communicated with the RPM. She reviewed the REM report and comments, prepared for and joined the biweekly calls, joined a call with the agencies to discuss the REM report and VI strategy, had a discussion with M. Tonkin, and corresponded with EPA. M. Tonkin joined a call with D. Sorel to discuss the VI planning location and review of responses. K. Pekoske worked on the monthly report and added documents to Endnote.

1725-009-01-10 0001AI-SE Rockford

Staff	Hours
Vivek Bedekar	████
Kathleen Mihm	████
Dominique Sorel	████
S. James Cousins	████
Zdravka Karanovic	████
Rachel Shannon	████
Glen Adams	████
Matthew O'Connell	████
Matthew Tonkin	████
Kristen Pekoske	████

During this period, V. Bedekar worked on MODFLOW model preparation for developing head contours and model development. K. Mihm reviewed maps of the bedrock surface. D. Sorel joined a meeting with R. Shannon, M. O'Connell, and M. Tonkin; reviewed water-level mapping, submitted data requests to EPA. She met with R. Shannon regarding the water-level mapping and kriging target zone and total VOC plume, worked on the draft report, prepared requests for additional data from the City of Rockford and the State, and followed up with M. O'Connell and R. Shannon on report preparation, including the VOC plume map. She also worked on the monthly report; prepared the site report, table, figures, and appendices; communicated with J. Knoepfle, reviewed and provided instructions to Z. Karanovic to complete the data source table; and corresponded with M. Tonkin regarding the geologic model. S.J. Cousins worked on spatial analysis/figures. Z. Karanovic updated the database and worked on the report. R. Shannon reviewed the data and produced a table and a figure for the water-level data requests. She worked on water-level and plume mapping, joined a call with EPA, reviewed and updated the water-level data request, and made GIS updates. G. Adams produced figures for R. Shannon, georeferenced maps, and spent time on data acquisition and digitizing. M. O'Connell worked on the trends methodology memo, updated the plot layouts, and worked on and

updated the draft memo. He compared river-gage data for trend analysis, reviewed water levels, calculated and reviewed trend and UCL spatial data, fixed total VOCs, updated the UCL tables and plots, and prepared a writeup. Finally, he worked on the draft trends memo, updated tables and figures to conform with the 2012 memo, and joined a call. M. Tonkin joined an internal status call reviewing water-level maps, geology, time-series trends, and providing recommendations on next steps. He joined a call on plume kriging, data sets, river response, and water-level data. He also joined calls with V. Bedekar and R. Shannon to discuss simple model setup, to get flow directions for figures, plumes, and T2CU evaluations. Finally, M. Tonkin reviewed water-level maps, geology, plumes, etc., via

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TEAMs and called and discussed the model idea for drift development. K. Pekoske worked on the monthly report, added documents to Endnote, and formatting a report for D. Sorel.

1725-010-01-10 001AJ-Forest Waste Superfund Site

Staff	Hours
Christopher Neville	████
Kathleen Mihm	████
Marinko Karanovic	████
Dominique Sorel	████
S.J. Cousins	████
Rachel Shannon	████
Kristen Slawter	████
Leah Nelson	████
Matthew Tonkin	████
Kristen Pekoske	████

During this period, C. Neville joined the monthly update teleconference (review of site conceptual model). K. Mihm reviewed the geology lithology files and the lithology files for EVS. She reviewed the new questions, provided comments on geology, worked on and updated the GWD files and model, geology slices, and posted 1,4-Dioxane data and fences. She also checked the data and discussed updates with L. Nelson. M. Karanovic prepared and imported the geology log file into EVS, worked on geological modeling in EVS, used indicator kriging in EVS, and updated the geology in EVS with the bedrock data. D. Sorel communicated with M. Tonkin regarding ongoing project tasks, performed QA, and joined a call with EPA RPM (WM) and M. Tonkin. She worked on a draft slide presentation, sent instructions to GIS for digitizing plume maps, corresponded with M. Tonkin and R. Shannon regarding 1,4-Dioxane plume mapping, and reviewed site reports to identify need to map other COCs (VC). She also worked on plume mapping, corresponded with M. Tonkin, and prepared visuals for the RAO discussion. S.J. Cousins worked on spatial analysis/figures. R. Shannon worked on water-level and plume maps; database updates; and data review, plume maps, and figures for the RAO presentation. K. Slawter joined a call with EPA regarding Eurofins data quality reporting. L. Nelson worked on EnviroInsite edits, cross section edits, checking zone assignments, and EnviroInsite coordinates. She updated EnviroInsite with the brown silt/clay layer and wrote a memo. M. Tonkin worked on project management and scheduling, joined a call with the EPA RPM, and spent time on follow up correspondence with EPA (D. Wilson) on cross-sections and geologic data evaluation. He reviewed data; joined a call with EPA on scheduling, priority items, and deliverables; joined a status

update call with FWCC, EPA, and consultants; and a call with EPA to review Eurofins letter and path forward. Additionally, M. Tonkin started draft slide deck for the interim RAO focused on containment / capture; joined calls with EPA and internally on capture RAO slide deck and images, and on 1,4-Dioxane sample reporting; and spent time on follow up correspondence with EPA, and internally on status of geoframework. He also worked on the 3D chemistry data evaluation, Sand 3/4 evaluation, and the potential contributing source CSM, and setup a GWD file for the planned call with EPA later in the week. Finally, M. Tonkin completed the slide deck for the draft RAOs discussion, shared and presented it via a netmeeting with EPA and EGLE; followed up on 3D geology and plumes and

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combined them into GWD; joined review calls with staff; and corresponded with EPA regarding providing the draft figures and the GWD file for review. K. Pekoske worked on the monthly report.

1725-011-01-10 0001AK - Motor Wheel Tire Disposal

Staff	Hours
Marinko Karanovic	
Dominique Sorel	
S.J. Cousins	
Zdravka Karanovic	
Glen Adams	
Michael Rafferty	
Matthew Tonkin	
Kristen Pekoske	
Pamela Corson	

During this period, M. Karanovic assisted Z. Karanovic with water-level mapping, reviewed and modified water-level maps, updated GWD with clipping kriging grid option, and added options to visualize profiles of kriging water-level maps in GWD. He also assisted Z. Karanovic with preparing figures in GWD and fixed a software issue in GWD. D. Sorel reviewed the Hydrasleeve document, corresponded and joined a call with M. Tonkin and M. Rafferty regarding preparation for VI call, and joined a call regarding water-level mapping with Z. Karanovic and M. Tonkin. She also prepared for and participated in the VI call, prepared the VI call minutes, and joined calls with M. Rafferty. She spent time looking for a document (Sept 2020 and Geotech report) and on correspondence regarding the semi-annual meeting. Additionally, D. Sorel worked on the monthly report, corresponded on and joined an internal meeting regarding water-level mapping with M. Tonkin and Z. Karanovic, and prepared a summary of the conference call and sent it to EPA. Finally, she worked with Z. Karanovic to prepare a draft presentation in preparation of the December semi-annual meeting, scheduled pre-and post-semi-annual meeting calls, and updated the project description and summary table. S.J. Cousins worked on spatial analysis. Z. Karanovic worked on data analysis and maps for presentations. G. Adams spent time georeferencing scanned maps, acquiring hydrology data, and digitizing. M. Rafferty reviewed documents and joined a call with M. Tonkin and D. Sorel, and a call with the PRP group. He also prepared for and joined a call with Goodyear and reviewed notes. M. Tonkin reviewed the status of the water-level maps, database, and data processing to assess capture and appropriate gradients, well locations/rates. He prepared for and attended an internal call to review water-level maps, capture zones, pathline calculations, plume maps, and their overlays; and spent time on follow

up correspondence. He also joined an internal conference call to discuss the VI data, plan, and prepare for a call with the RP next week; and prepared a template for an internal presentation of water-level, capture and plume analyses. Finally, he commenced his review of the Goodyear presentation and commenced a compilation of review comments to share with EPA. K. Pekoske worked on the monthly report, filed documents and added them to Endnote, and exported comments for M. Tonkin. P. Corson found and copied Rockfield files to the San Francisco server identified by M. Rafferty and downloaded EPA files.

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012-02-10 0001AL - Verona Wells - OU2

Staff	Hours
Alexandros Spiliotopoulos	████
Dominique Sorel	████
Matthew Tonkin	████

During this period, A. Spiliotopoulos reviewed the project material in preparation for a call with EPA. He joined a call with M. Tonkin and D. Sorel on the project background and a call with EPA (K. Poulos and D. Wilson). He also worked on data compilation and review for draft plume mapping and worked on plume mapping for 2020. D. Sorel joined a conference call with EPA (K. Poulos and D. Wilson) to discuss analyses to be performed in preparation of the 5-year review. She also followed up with the data request, reviewed the document sent, and joined an internal discussion with A. Spiliotopoulos and M. Tonkin, sending background documents to A. Spiliotopoulos. M. Tonkin joined the status call, and discussed background on the site conditions, recent reports, and project requirements.

1725-013-01-10 0001AM - Hagen Farm

Staff	Hours
Alexandros Spiliotopoulos	████
Dominique Sorel	████
Kristen Pecoske	████

During this period, A. Spiliotopoulos reviewed the site material, the system shutdown data/report and other related material, the 2020 annual report, the 5-year review report, and the shutdown work plan. He also prepared for and joined a call with EPA (S. Sullivan) on the shutdown report, historical data and regulatory requirements. Finally, he reviewed the regulatory framework, corresponded with EPA-PRP, and reviewed and compiled material for the shutdown evaluation. D. Sorel joined a meeting with A. Spiliotopoulos regarding the remedy shutdown evaluation, corresponded with S. Sullivan, obtained new data from GEMS, and worked on the 3rd quarter report. Finally, she joined a call with EPA (S. Sullivan) and A Spiliotopoulos regarding the remedy discussion and treatment shutdown test, reviewed data, and worked on the monthly report. K. Pecoske worked on the monthly report and added documents to Endnote.

1725-014-01-10 0001AN – Springfield

Staff	Hours
Erica Perozo	
Rachel Shannon	
Leah Nelson	
Charles Andrews	
Matthew Tonkin	
Kristen Pecoske	
Devon Rutledge	

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During this period, E. Perozo worked on data compilation, vertical profiles, and groundwater chemistry maps; discussed water-level mapping and geology; and prepared for and joined calls with EPA and a call with EPA and the State. Additionally, she reviewed lotus notes files and met internally with staff regarding water-level maps. R. Shannon worked on water-level and capture maps, reviewed the geology data, and joined calls with EPA regarding water-level mapping and geology. She also worked on a cross-section figure for discussion with EPA: geology and flow direction. L. Nelson conducted a QA of the boring log info, met with E. Perozo, transferred, and updated the Access database, met with E. Perozo and R. Shannon, and made edits in EnviroInsite. She produced draft cross-sections, joined an EPA meeting, and worked on EnviroInsite geologic interpretation. Finally, she joined another EPA meeting, made edits to the cross-sections, and joined a call with R. Shannon. C. Andrews reviewed the site data and discussed it with the team. M. Tonkin reviewed water-level mapping and regional geology and CSM and joined calls with E. Perozo. K. Pekoske worked on the monthly report. D. Rutledge worked on document extraction and data entry.

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Staff	Hours
Christopher Neville	████
Erica Perozo	████
Marinko Karanovic	████
Dominique Sorel	████
Kristen Slawter	████
Glen Adams	████
Michael Rafferty	████
Matthew Tonkin	████
Kristen Pekoske	████
Devon Rutledge	████

During this period, C. Neville reviewed data to develop projections of concentrations at the water table. E. Perozo read documents, joined a call regarding the documents requested by EPA, and joined a call with M. Tonkin and M. Rafferty regarding VI. She worked on particle tracking, water-level mapping, profile plots, and RI data. She joined a call with EPA and reviewed and commented on the MNA report. Finally, she worked on hydraulic gradients, water-level maps, the hydraulic gradient memo, and the MNA memo. M. Karanovic evaluated the water-level mapping and particle tracking, reviewed the water-level maps, and prepared the GWD file for particle tracking. D. Sorel communicated with EPA regarding support for the risk evaluation. K. Slawter reviewed documents, questions, and comments.

G. Adams spent time georeferencing and digitizing. M. Rafferty reviewed documents. M. Tonkin compiled a document list, reviewed initial VI documents, and provided them to M. Rafferty for a detailed review. He reviewed the document list, corresponded with EPA, and joined calls with E. Perozo to discuss document schedules. He planned a meeting with EPA to prioritize analyses and reviewed and corresponded with EPA on the list of documents to review, priorities, and assumptions / concerns for certain deliverables. Additionally, M. Tonkin collated documents and commenced reviews; joined an update call on data analysis, documents to be reviewed, and deliverables to be compiled; and followed up with E. Perozo on To Do items and schedule. He joined a status call with E. Perozo, discussed the water-level / gradient technical memorandum for EPA, reviewed the draft and



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provided comments, and obtained a report and compilation of plots. Finally, he joined a status call with E. Perozo and K. Slawter to discuss water-level analysis, trends, and other interpretations of the site MNA report, in preparation for the technical memorandum preparation to EPA. K. Pekoske worked on project organization and deliverable scheduling, joined a call with M. Tonkin and E. Perozo, and added documents to Endnote. She joined a call with M. Rafferty, searched site documents for data criteria, and worked on the monthly report. D. Rutledge added documents to Endnote, produced a reference list for E. Perozo, and reordered pages for a referenced report.

S.S. PAPADOPULOS & ASSOCIATES, INC.

Summary completed by:

A handwritten signature in cursive script that reads "Dominique Sorel".

Dominique Sorel
Alternate Project Manager

Summary reviewed by:

A handwritten signature in cursive script that reads "Matthew Tonkin".

Matthew Tonkin
Project Manager

